RIODICAL FAO Fisheries Circular 104 (Rev 1)

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

ORGANISATION DES NATIONS UNIES POUR L'ALIMENTATION ET L'AGRICULTURE

ORGANIZACION DE LAS NACIONES UNIDAS PARA LA AGRICULTURA Y LA ALIMENTACION

FR : FB/67/Inf. 2

FAO CONFERENCE ON FISH BEHAVIOUR IN RELATION TO FISHING TECHNIQUES AND TACTICS

CONFERENCE FAO SUR LE COMPORTEMENT DU POISSON EN FONCTION DES TECHNIQUES ET TACTIQUES DE PECHE

CONFERENCIA DE LA FAO SOBRE EL COMPORTAMIENTO DE LOS PECES EN RELACION CON LAS TECNICAS Y TACTICAS PESQUERAS

Bergen, Norway, 19 - 27/10/67

NOV 22 1967
FISH & WILDLIFE SERVICE

A List of Experts on Fish Behaviour in Relation to Fishing Techniques and Tactics

prepared by

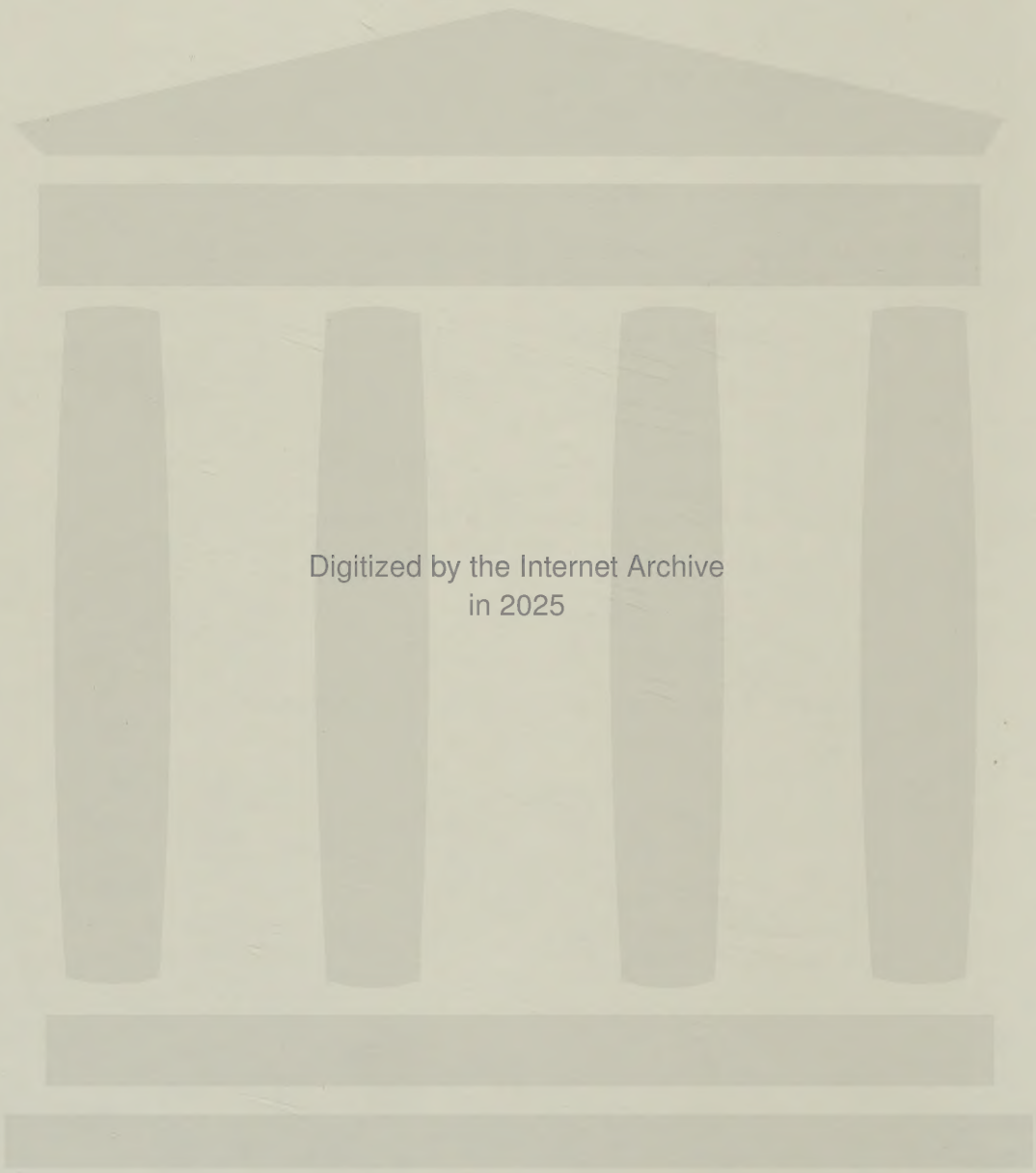
Fishery Resources and Exploitation Division

Contents

List of Experts page 1
Indexes
Subject Index S 1 -S 6
Taxonomic Index T 1 -T 12
Geographic Index G 1 -G 2

FISHERY RESOURCES AND EXPLOITATION DIVISION
DEPARTMENT OF FISHERIES

WM/65021



Digitized by the Internet Archive
in 2025

https://archive.org/details/fao-fisheries-and-aquaculture-circular_1967-08_104-revision-1

A LIST OF EXPERTS ON FISH BEHAVIOUR IN RELATION TO FISHING TECHNIQUES AND TACTICS

Prepared by

Fishery Resources and Exploitation Division

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
Rome, August 1967

PREPARATION OF THIS DOCUMENT

This document is a revised version of the List of Experts on Fish Behaviour in Relation to Fishing Techniques and Tactics (FAO Fisheries Circular No. 104, FRmo/C104) issued in December 1966. It is chiefly based on the information provided by persons who returned a special questionnaire circulated by FAO early in 1967.

By reviewing the returned questionnaires the names and addresses of experts were checked and the geographic, subject and taxonomic indexes arranged. Names of experts who did not return the completed questionnaire by 1 August 1967 and whose particulars and field of work could not be checked are marked by an asterisk.

Entries in the List are numbered serially, and these numbers are used for reference in the indexes, which follow, where possible the codes used in the Current Bibliography In Aquatic Sciences and Fisheries indexes.

This List, prepared by A. Ben-Tuvia, W. Dickson and E. Akyüz, is being presented as an Information Paper, FR: FB/67/Inf. 2, to the FAO Conference on Fish Behaviour in Relation to Fishing Techniques and Tactics to be held in Bergen, Norway from 19 to 27 October 1967.

FAO Fisheries Circular (FAO Fish. Circ.)

A vehicle for distribution of short or ephemeral notes, lists, etc., including provisional versions of documents to be issued later in other series.

C O N T E N T S

	Page
LIST OF EXPERTS	1
INDEXES:-	
SUBJECT INDEX	S 1 - S 6
TAXONOMIC INDEX	T 1 - T 12
GEOGRAPHIC INDEX	G 1 - G 2

001
*Ahlstrom, Dr. E.H.
Laboratory Director
Bureau of Commercial Fisheries
8604 La Jolla Shores Drive
P.O. Box 271
La Jolla, California 92038, U.S.A.

002
Alabaster, Mr. J.S.
Deputy Chief Officer
Salmon and Freshwater Fisheries Laboratory
Ministry of Agriculture, Fisheries and Food
10 Whitehall Place
London, S.W.1, U.K.

003
Alderdice, Dr. D.F.
Fisheries Research Board of Canada
Biological Station
Nanaimo, British Columbia, Canada

004
Aldrich, Dr. D.V.
Associate Professor
Marine Laboratory
Texas A and M University
Galveston, Texas 77550, U.S.A.

005
Aloncle, Mr. H.
Océanographe Biologiste de l'ORSTOM
Institut des Pêches Maritimes du Maroc
rue de Tiznit
Casablanca, Morocco

006
*Alverson, Dr. D.L.
Base Director
Bureau of Commercial Fisheries
Exploratory Fishing and Gear Research Base
2725 Montlake Boulevard East
Seattle, Washington 98125, U.S.A.

007
Armstrong, Dr. P.B.
Marine Biological Laboratory
Woods Hole Oceanographic Institution
Woods Hole, Massachusetts 02543, U.S.A.

008
Arnold, Mr. G.
Scientific Officer
Ministry of Agriculture, Fisheries and Food
Fisheries Laboratory
Lowestoft, Suffolk, U.K.

009
*Aronson, Mr. R.L.
The American Museum of Natural History
Central Park West at 79th Street
New York, New York 10024, U.S.A.

010
*Atz, Dr. J.W.
60 Hawthorne Place
Malverne, New York 11565, U.S.A.

011
Baerends, Prof. G.P.
Zoologisch Laboratorium
Rijksstraatweg 78
Haren, Groningen, Netherlands

012
Bagenal, Mr. T.B.
Freshwater Biological Association
Windemere Laboratory
Ferry House
Ambleside, Westmorland, U.K.

013
Bainbridge, Dr. R.
Zoological Laboratory
Dowing Street
Cambridge, Cambridgeshire, U.K.

014
Bardach, Prof. J.E.
School of Natural Resources
Department of Zoology
University of Michigan
Ann Arbor, Michigan 48106, U.S.A.

015
*Baxter, Dr. I.G.
Department of Agriculture and Fisheries for Scotland
Marine Laboratory
P.O. Box 101
Victoria Road
Torry, Aberdeen, Scotland, U.K.

016
Beamish, Dr. F.W.
Associate Professor of Zoology
University of Guelph
Guelph, Ontario, Canada

017
*Beauchamp, Mr. R.S.A.
Biology Section
Central Electricity Research Laboratories
Cleeve Road
Leatherhead, Surrey, U.K.

018
*Bell, Mr. B.E.
Director, East African Marine Fisheries Research Organization
P.O. Box 668
Tansania, East Africa

019
*Bell, Mr. J.C.
Analytical Services Department
The British Oxygen Company Ltd.
Scientific Division
Deer Park Road
London, S.W.19, U.K.

020
Ben-Tuvia, Dr. A.
Biologist, Marine Biology Section
Marine Biology and Environment Branch
Fishery Resources and Exploitation Division
FAO, Rome, Italy

021
Ben-Yami, Mr. M.
Fishing Technologist
Sea Fisheries Research Station
P.O. Box 699
Haifa, Israel

022
*Berenbein, Dr. D.Y.
Technological Institute of Fisheries
2 Prospect Mira
Kaliningrad, USSR

023
*Bergeron, Prof. G.
Ecole d'Apprentissage en Pêcheries
Department des Pêcheries
Grande-Rivière
Cté. Gaspé Sud, Canada

024
*Berst, Mr. A.H.
Southern Research Station
Department of Lands and Forests
Maple, Ontario, Canada

025
Besançon, Mr. H.C.
Research Branch of Technical Fisheries Research Department
Fisheries Directorate
Postbox 27
IJmuiden, Netherlands

026
*Bialek, Mr. E.L.
7914 Park Overlook Drive
Bethesda, Maryland 20034, U.S.A.

027
Blancheteau, Mr. M.
Laboratoire de Psychologie expérimentale et comparée
28 rue Serpente
Paris (6ème), France

028
Blaxter, Mr. J.H.S.
Natural History Department
Marischal College
University of Aberdeen
Aberdeen, Scotland, U.K.

029
Boerema, Mr. L.K.
Chief, Stock Assessment Section
Fishery Resources and Exploitation Division
FAO, Rome, Italy

030
*Boetius, Mr. J.
Danmarks Fiskeri-Og Havunders ogelser
(Fysiologisk Laboratorium Danmarks Akvarium)
Charlottenlund Slot
Charlottenlund, Denmark

031
*Bolster, Mr. G.C.
Ministry of Agriculture, Fisheries and Food
Fisheries Laboratory
Lowestoft, Suffolk, U.K.

032
Bonnet, Mr. M.
Chargé de Recherches
Institut Scientifique et Technique des Pêches Maritimes
34 Sète, France

033
Boyar, Mr. H.C.
Fishery Biologist (Research)
Bureau of Commercial Fisheries
Biological Laboratory
Boothbay Harbor, Maine 04538, U.S.A.

034
Brandt, Dr. A.v.
Ld. Direktor und Professor
Institut für Fangtechnik
Palmaille 9
Hamburg 50
Federal Republic of Germany

035
Brawn, Dr. V.M. (Mrs. Srivastava)
Fisheries Research Board of Canada
Bedford Institute of Oceanography
P.O. Box 1006
Dartmouth, Nova Scotia, Canada

036
*Breder, Dr. C.M.
Department of Fishes and Aquatic Biology
American Museum of Natural History
Central Park West at 79th Street
New York, New York 10024, U.S.A.

037
*Brett, Dr. J.R.
Fisheries Research Board of Canada
Pacific Biological Station
Nanaimo, British Columbia, Canada

038
Bridger, Mr. J.
Senior Experimental Officer
Gear Section
Ministry of Agriculture, Fisheries and Food
Fisheries Laboratory
Lowestoft, Suffolk, U.K.

039
Brown, Dr. C.J.D.
Professor of Fisheries
Montana State University
Bozeman, Montana 59715, U.S.A.

040
*Brown, Dr. F.A., Jr.
Department of Biological Sciences
Northwestern University
Evanston, Illinois 60201, U.S.A.

041
*Browne, Mr. B.C.
Department of Geodesy and Geophysics
Madingley Rise
Madingley Road
Cambridge, U.K.

042
Buerkle, Mr. U.
Fisheries Research Board of Canada
Biological Station
St. Andrews
New Brunswick, Canada

043
Bull, Dr. H.O.
Dove Marine Laboratory
Cullercoats
North Shields, Northumberland, U.K.

044
Bullis, Mr. H.R., Jr.
Base Director
Gulf and South Atlantic Explorations and Gear Research
P.O. Drawer 1207
Pascagoula, Mississippi 39567, U.S.A.

045
*Burd, Mr. A.C.
Ministry of Agriculture, Fisheries and Food
Fisheries Laboratory
Lowestoft, Suffolk, U.K.

046
Busnel, Mr. R.G.
Directeur de Recherches
Ministère de l'Agriculture
Institut National de la Recherche Agronomique
Laboratoire de Physiologie Acoustique
78 Jouy-en-Josas (S. et O.), France

047
Campbell, Mr. H.W.
Department of Zoology
University of California
Los Angeles, California 90024, U.S.A.

048
Carrothers, Mr. P.J.G.
Senior Scientist
Fisheries Research Board of Canada
Biological Station
St. Andrews, New Brunswick, Canada

049
*Cattley, Mr. J.G.
Ministry of Agriculture, Fisheries and Food
Fisheries Laboratory
Lowestoft, Suffolk, U.K.

050
Chacko, Dr. P.I.
Deputy Director of Fisheries
6 Menads Street
Purasawalkam, Madras 7, India

051
Chapman, Mr. C.J.
Department of Agriculture and Fisheries for Scotland
Marine Laboratory
P.O. Box 101
Victoria Road
Torry, Aberdeen, Scotland, U.K.

052
Chapman, Mr. D.W.
College of Forestry
University of Idaho
Moscow, Idaho 83843, U.S.A.

053
Clark, Dr. E.
Cape Haze Marine Laboratory, Inc.
9501 Blind Pass Road
Sarosota, Florida 35581, U.S.A.

054
Clarke, Dr. G.L.
Professor of Biology
Harvard Biological Laboratory
Cambridge, Massachusetts 01451, U.S.A.

055
*Collart, Mr. A.
c/o FAO Country Representative
Boite Postale 506
Cotonou, Dahomey, West Africa

056
Collignon, Mr. J.
Directeur, Institut des Pêches Maritimes du Maroc
rue de Tiznit
Casablanca, Morocco

057
*Corbin, Mr. P.
Marine Biological Association
Citadel Hill
Plymouth, Devon, U.K.

058
Cragg-Hine, Dr. D.
Research Officer (Biologist)
Central Electricity Generating Board
Research and Development Department
Hams Hall Power Station
Sutton Coldfield, Warwickshire, U.K.

059
Craig, Mr. R.E.
Department of Agriculture and Fisheries for Scotland
Marine Laboratory
P.O. Box 101
Victoria Road
Torry, Aberdeen, Scotland, U.K.

060
Crewe, Mr. P.R.
Chief Hydrodynamics Engineer
British Hovercraft Corporation Ltd.
East Cowes, Isle of Wight, Hants., U.K.

061
*Cronin, Dr. L.E.
Liaison Scientist
United States Department of the Navy
Office of Naval Research
Keysign House
429 Oxford Street, London, W.1, U.K.

062
*Cronly-Dillon, Mr. J.R.
Department of Physiology
University of Edinburgh
Edinburgh, Scotland, U.K.

063
*Cullen, Mr. M.
Department of Zoology
Oxford University, Oxford, U.K.

064
Cummings, Mr. W.C.
U.S. Navy Electronics Laboratory
San Diego, California 92152, U.S.A.

065
Cushing, Dr. D.H.
Ministry of Agriculture, Fisheries and Food
Fisheries Laboratory
Lowestoft, Suffolk, U.K.

066
Daget, Dr. J.M.A.
Directeur de Recherches
O.R.S.T.O.M.
24 rue Bayard
Paris 8ème, France

067
Dannevig, Mr. G.
Director, Statens Biologiske Stasjon
Flødevigen
Arendal, Norway

068
*Davies, Mr. D.H.
Marine Biological Research Institute of South Africa
P.O. Box 736
Durban, Republic of South Africa

069
De Boer, Mr. E.J.
Engineering Branch of the Technical Fisheries Research Department
Fisheries Directorate
Postbox 27
IJmuiden, Netherlands

070
*De Graaf, Mr. F.
Aquarium of the Zoological Garden
Amsterdam, Netherlands

071
De Groot, Mr. S.J.
Fishery Biologist
Rijksinstituut voor Visserijonderzoek
Haringkade 1
IJmuiden, Netherlands

072
Dembiński, Dr. W.
Head, Department of Fishing Techniques
Instytut Rybactwa Śródladowego
Olsztyn-Kortowo, Poland

073
Denton, Prof. E.J.
Research Professor
The Laboratory
Citadel Hill
Plymouth, Devon, U.K.

074
Dethloff, Dr. J.
Managing Director
Intelectron International Electronics
GMBH, 2000 Hamburg 52
Elbchausee 143
Federal Republic of Germany

075
*De Veen, Mr. T.
Rijkinstituut voor Visserijonderzoek
Haringkade 1
IJmuiden, Netherlands

076
Devold, Mr. F.
Fiskeridirektoratets Havforskning-institutt
Postboks 2906
Bergen, Norway

077
De Wit, Mr. J.G.
Chief, Technical Fisheries Research Department
Fisheries Directorate
Postbox 27
IJmuiden, Netherlands

078
Dickie, Dr. L.M.
Director, Fisheries Research Board of Canada
Bedford Institute of Oceanography
P.O. Box 1006
Dartmouth, Nova Scotia, Canada

079
Dickson, Mr. W.
Fishing Technologist, Gear Technology Section
Fishery Resources and Exploitation Division
FAO, Rome, Italy

080
*Dobkin, Dr. S.
Department of Biological Sciences
Florida Atlantic University
Boca Raton, Florida 33432, U.S.A.

081
Doudoroff, Prof. P.
Department of Fisheries and Wildlife
Oregon State University
Corvallis, Oregon 97330, U.S.A.

082
*Dowd, Mr. R.G.
Fisheries Research Board of Canada
Bedford Institute of Oceanography
P.O. Box 1006
Dartmouth, Nova Scotia, Canada

083
Dragesund, Mr. O.
Senior Scientist, Biologist
Fiskeridirektoratets Havforskning-
institutt
Nordnesparken 2
Bergen, Norway

084
*Drimmelen, Mr. D.E. van
Chairman O.V.B.
Organisation for Improvement of Inland
Fisheries
Stadhouderslaan 57
Utrecht, Netherlands

085
Druzhinin, Dr. A.D.
FAO Marine Fisheries Biologist
c/o UNDP
24 Manaw Hari (Cheape) Road
Rangoon, Burma

086
Eberhardt, Mr. R.L.
Research Scientist
Lockheed Ocean Laboratory
3380 N. Harbor Drive
San Diego, California 92101, U.S.A.

087
Edgerton, Prof. H.E.
Massachusetts Institute of Technology
Cambridge, Massachusetts 02139, U.S.A.

088
*Egusa, Dr. S.
Department of Fisheries
Faculty of Agriculture
The University of Tokyo
Bunkyo-ku, Tokyo, Japan

089
Eisler, Dr. R.
Chief, Environmental Requirements Unit
Federal Water Pollution Control
Administration
National Marine Water Quality Laboratory
W. Kingston, Rhode Island 02892, U.S.A.

090
Ellis, Dr. D.V.
Associate Professor
Biology Department
University of Victoria
Victoria, British Columbia, Canada

091
Enger, Dr. P.S.
Associate Professor
Fysiologisk Institutt
Karl Johansgt. 47
Oslo 1, Norway

092
Fish, Dr. M.P.
Biological Oceanographer
Narragansett Marine Laboratory
Graduate School of Oceanography
University of Rhode Island
Kingston, Rhode Island 02881, U.S.A.

093
*Flittner, Dr. G.A.
Bureau of Commercial Fisheries
Box 6317
Pt. Loma Station
San Diego, California 92106, U.S.A.

094
Fontaine, Prof. M.
Directeur, l'Institut Océanographique
195 rue St. Jacques
Paris 5ème, France

095
*Foster, Mr. J.J.
Department of Agriculture and Fisheries
for Scotland
Marine Laboratory
P.O. Box 101
Victoria Road
Torry, Aberdeen, Scotland, U.K.

096
Fredin, Mr. R.A.
Fishery Biologist
Bureau of Commercial Fisheries
Biological Laboratory
2725 Montlake Boulevard East
Seattle, Washington 98125, U.S.A.

097
Freytag, Dr. G.
Institut für Fangtechnik
2 Hamburg 50
Palmaille 9
Federal Republic of Germany

098
Fry, Prof. F.E.J.
Ontario Fisheries Research Laboratory
Department of Zoology
University of Toronto
Toronto 5, Canada

099
Fujino, Dr. K.
Chief, Subpopulation Program
Biological Laboratory
P.O. Box 3830
Honolulu, Hawaii 96812, U.S.A.

100
*Fuss, Mr. C.M., Jr.
Bureau of Commercial Fisheries
Biological Laboratory
St. Petersburg Beach
Florida 33706, U.S.A.

101
Gaufin, Mr. R.F.
Research Associate
Department of Entomology and Limnology
Cornell University
Ithaca, New York 14850, U.S.A.

102
Gauthier, Miss M.
Biologist
C.P. 382
Station de Biologie marine
Grande-Rivière, Gaspé, Quebec, Canada

103
*Gerhardsen, Mr. T.
Director, Simonsen 8 Mustad A/S
Horten, Norway

104
Gooding, Mr. R.M.
Fishery Biologist
Bureau of Commercial Fisheries
P.O. Box 3830
Honolulu, Hawaii 96812, U.S.A.

105
Green, Dr. R.E.
Fishery Biologist (Research)
Tuna Resources Laboratory
Bureau of Commercial Fisheries
P.O. Box 271
La Jolla, California 92037, U.S.A.

106
Griffiths, Mr. R.C.
FAO Fishery Biologist
c/o UNDP
Apartado 1969, Caracas, Venezuela

107
Groot, Dr. C.
Director, Head Biological Research
Netherlands Institute for Sea Research
Buitenhaven 27, Den Helder, Netherlands

108
*Hansen, Dr. K.
Universitets geografiske Institut
Kejsergade 2
Kobenhavn K, Denmark

109
Hansen, Mr. N.K.
Fjellveien 28
Bergen, Norway

110
*Harden-Jones, Dr. F.R.
Ministry of Agriculture, Fisheries and Food
Fisheries Laboratory
Lowestoft, Suffolk, U.K.

111
Hartman, Dr. G.F.
Fishery Research Biologist
Fish and Wildlife Branch
c/o Institute of Fisheries
University of British Columbia
Vancouver 8, British Columbia, Canada

112
Hashimoto, Dr. T.
Shibaura Technical Institute
Shibaura 3-9-14
Minato-ku, Tokyo, Japan

113
Hasler, Dr. A.D.
Laboratory of Limnology
University of Wisconsin
Madison, Wisconsin 53706, U.S.A.

114
Haslett, Dr. R.W.G.
Senior Physicist
Kelvin Hughes
Hainault, Essex, U.K.

115
Hatanaka, Dr. M.A.
Associate Professor
Department of Fisheries
Faculty of Agriculture
Tohoku University
Sendai, Miyagi-ken, Japan

116
Hawkins, Mr. A.D.
Department of Agriculture and Fisheries for Scotland
Marine Laboratory
P.O. Box 101
Victoria Road
Torry, Aberdeen, Scotland, U.K.

117
Hemmings, Dr. C.C.
Department of Agriculture and Fisheries for Scotland
Marine Laboratory
Victoria Road
Torry, Aberdeen, Scotland, U.K.

118
*Hempel, Prof. G.
Institut für Meereskunde
Hohenbergstr. 2
23 Kiel, Federal Republic of Germany

119
*Henderson, Dr. H.F.
Assistant Professor of Zoology
Laboratory of Limnology
University of Wisconsin
Madison, Wisconsin 53706, U.S.A.

120
Hergenrader, Dr. G.L.
Assistant Professor of Zoology
Department of Zoology and Physiology
University of Nebraska
Lincoln, Nebraska 68503, U.S.A.

121
*Herrnkind, Mr. W.F.
Institute of Marine Science
University of Miami
Miami, Florida 33149, U.S.A.

122
Hester, Dr. F.J.
Fishery Biologist (Research)
Tuna Resources Laboratory
Bureau of Commercial Fisheries
P.O. Box 271
La Jolla, California 92037, U.S.A.

123
Hiatt, Prof. R.W.
Vice President for Academic Affairs
University of Hawaii
Honolulu, Hawaii 96822, U.S.A.

124
High, Mr. W.L.
Assistant Chief, Gear Research Unit
Bureau of Commercial Fisheries
Exploratory Fishing and Gear Research Base
2725 Montlake Boulevard East
Seattle, Washington 98102, U.S.A.

125
Higo, Dr. N.
Associate Professor
Faculty of Fisheries
Kagoshima University
Shimoarata-cho 470
Kagoshima City, Japan

126
*Hirata, Dr. H.
Marine Fish Culture Centre
Yashima, Takamatsu, Japan

127
Hislop, Mr. J.R.G.
Department of Agriculture and Fisheries for Scotland
Marine Laboratory
P.O. Box 101
Victoria Road
Torry, Aberdeen, Scotland, U.K.

128
Hiyama, Prof. Y.
Fisheries Institute
Faculty of Agriculture
Tokyo University
Hongo, Tokyo, Japan

129
*Hoar, Prof. W.S.
University of British Columbia
Institute of Fisheries
Vancouver 8, British Columbia, Canada

130
Hobson, Mr. E.S.
Fishery Research Biologist
US Bureau of Sport Fisheries and Wildlife
Fishery-Oceanography Centre
P.O. Box 271
La Jolla, California 92038, U.S.A.

131
Hoff, Mr. I.
Havforskninginstituttet
Nordnesparken 2
Bergen, Norway

132
*Hohendorf, Dr. K.
Institut für Meereskunde der Universität Kiel
Fischereibiologische Abteilung
23 Kiel, Hohenbergstr. 2
Federal Republic of Germany

133
Holliday, Prof. F.G.T.
Department of Biology
The University
Stirling, Scotland, U.K.

134
*Horrall, Dr. R.M.
Laboratory of Limnology
University of Wisconsin
Madison, Wisconsin 53706, U.S.A.

135
Hovart, Mr. P.J.F.
Director, Fisheries Research Station
Stadhuis
4e verdieping, Ostend, Belgium

136
Hsaio, Prof. S.C.
Department of Zoology
University of Hawaii
Honolulu, Hawaii 96822, U.S.A.

137
Hunter, Dr. J.R.
Fishery Biologist (Research)
Tuna Resources Laboratory
Bureau of Commercial Fisheries
P.O. Box 271
La Jolla, California 92037, U.S.A.

138
Iitaka, Dr. Y.
Associate Professor
Fisheries Department
Faculty of Agriculture
Kinki University, Osaka, Japan

139
Iles, Mr. T.D.
Ministry of Agriculture, Fisheries and Food
Fisheries Laboratory
Lowestoft, Suffolk. U.K.

140
Imamura, Prof. Y.
Tokyo University of Fisheries
Laboratory of Fishing Methods
7-5-4 Konan
Minatoku, Tokyo, Japan

141
*Isaacs, Prof. J.
Director, Marine Life Research Group
Scripps Institution of Oceanography
La Jolla, California 92038, U.S.A.

142
*Ishida, Prof. M.
Faculty of Fisheries
Hokkaido University
Minato-Machi 253
Hakodate, Hokkaido, Japan

143
Iversen, Mr. R.T.B.
Fishery Biologist (Research)
c/o Honolulu Laboratory
Bureau of Commercial Fisheries
P.O. Box 3830
Honolulu, Hawaii 96812, U.S.A.

144
Jahn, Mr. L.A.
Department of Zoology and Entomology
Montana State University
Bozeman, Montana 59715, U.S.A.

145
Jahr, Mr. D.
Research Engineer
Central Institute for Industrial Research
Forskningsveien 1
Blindern, Oslo 3, Norway

146
Jakobsson, Mr. J.
Fisheries Biologist
Hafrannsóknastofnunin
Skúlgata 4
Reykjavik, Iceland

147
*Jones, Mr. A.E.
Institute of Marine Science
1 Rickenbacker Causeway
Miami, Florida 33149, U.S.A.

148
Jones, Mr. B.F.
Base Director
Bureau of Commercial Fisheries
Exploratory Fishing and Gear Research Base
P.O. Box 1668
Juneau, Alaska 99801, U.S.A.

149
*Jones, Dr. J.R.E.
Department of Zoology
University College of North Wales
Aberystwyth, North Wales, U.K.

150
Jurkovich, Mr. J.E.
Fishery Methods and Equipment Specialist
Bureau of Commercial Fisheries
Exploratory Fishing and Gear Research Base
2725 Montlake Boulevard East
Seattle, Washington 98125, U.S.A.

151
Kanamori, Prof. M.
Faculty of Fisheries
Hokkaido University
253 Minato-Machi
Hakodate, Hokkaido, Japan

152
*Kawakami, Dr. T.
Fisheries Department
Faculty of Agriculture
Kyôto University
Maizuru-shi, K
Kyôto-fu, Japan

153
Kawamoto, Prof. N.
Senior Professor of Fisheries
Department of Fisheries
Faculty of Agriculture and Veterinary Medicine
Nihon University
Shimouma 3
Setagaya, Tokyo, Japan

154
Keenleyside, Dr. M.H.A.
Department of Zoology
University of Western Ontario
London, Ontario, Canada

*155
Kim, Mr. Keh Oh
Assistant National Coordinator
Chief, Fisheries Resources Section
Fisheries Research and Development Agency
Pusan, Korea

156
*Kinne, Prof. O.
Biologische Anstalt Heligoland
2 Hamburg 50
Palmaille 9
Altona
Federal Republic of Germany

157
Kiselev, Mr. O.N.
The Polar Research Institute of Marine Fisheries and Oceanography (PINRO)
Knipovich Street 6
Murmansk, USSR

158
Kobayashi, Prof. K.
Faculty of Fisheries
Hokkaido University
253 Minato-cho
Hakodate, Hokkaido, Japan

159
Kohler, Dr. A.C.
Fisheries Research Board of Canada
Biological Station
St. Andrews, New Brunswick, Canada

160
Konstantinov, Dr. K.G.
The Polar Research Institute of Marine Fisheries and Oceanography (PINRO)
Knipovich Street 6
Murmansk, USSR

161
Koyama, Mr. T.
Tokai Regional Fisheries Research Laboratory
Ministry of Agriculture and Forestry
5-5 Kachidoki
Chuo-ku, Tokyo, Japan

162
Kreutzer, Dr. C.O.
Director of Research
Smith Research and Development Co. Inc.
Lewes, Delaware 19958, U.S.A.

163
Kurc, Dr. G.
Chef de Laboratoire
Institut Scientifique et Technique des Pêches Maritimes
59 Avenue Raymond-Poincaré
Paris XVIème -75-, France

164
*Kurian, Mr. C.V.
Chief of Gear Wing
Central Fisheries Technological Research Station
P.O. 39 Chittoor Road
Ernakulum 1, Kerala, India

165
Kuroki, Prof. T.
Faculty of Fisheries
Hokkaido University
253 Minato-cho
Hakodate, Hokkaido, Japan

166
Kusaka, Dr. T.
Associate Professor
Ocean Research Institute
University of Tokyo
1-15-1 Minamidai
Nakana, Tokyo, Japan

167
*Kutty, Mr. M.N.
Central Marine Fisheries Research Institute
Marine Fisheries P.O.
Mandapam Camp
Ramnad, South India

168
*Laevastu, Dr. T.
Freshwater Fisheries Laboratory
Ministry of Agriculture, Fisheries and Food
10 Whitehall Place
London, S.W.1., U.K.

169
LaFond, Mr. E.C.
Head, Marine Environment Division
U.S. Navy Electronics Laboratory
San Diego, California 92152, U.S.A.

170
Lamarque, Mr. P.
Chargé de Recherches
Institut National de la Recherche Agronomique
Station d'Hydrobiologie continentale de Biarritz
Centre scientifique
Biarritz, France

171
Lasker, Dr. R.
Physiologist
Bureau of Commercial Fisheries
Biological Laboratory
P.O. Box 271
La Jolla, California 92037, U.S.A.

172
Lillelund, Prof. K.
Institut für Hydrobiologie und Fischereiwissenschaft der Universität Hamburg
2 Hamburg 50
Olbersweg 24
Federal Republic of Germany

173
Ling, Mr. S.W.
Regional Fish Culturist
FAO Regional Office for Asia and the Far East
Maliwan Mansion
Phra Atit Road, Bangkok, Thailand

174
*Livingstone, Mr. R. Jr.
Fishery Research Biologist
Bureau of Commercial Fisheries
Woods Hole, Massachusetts 02543, U.S.A.

175
Lowenstein, Prof. O.E.
Professor of Zoology and Comparative Physiology
University of Birmingham
P.O. Box 363
Birmingham, U.K.

176
Lusz, Mr. L.D.
Electronic Engineer
Bureau of Commercial Fisheries
Exploratory Fishing and Gear Research Base
2725 Montlake Boulevard East
Seattle, Washington 98102, U.S.A.

177
Lynch, Mr. D.D.
Chairman
Inland Fisheries Commission
127 Davey Street
Hobart, Tasmania, Australia

178
McCartney, Dr. B.S.
National Institute of Oceanography
Wormley
Nr. Godalming, Surrey, U.K.

179
McCombie, Dr. A.M.
Research Scientist
Ontario Department of Lands and Forests
Maple, Ontario, Canada

180
McCracken, Dr. F.D.
Program Head, Groundfish Investigations
Fisheries Research Board of Canada
Biological Station
St. Andrews, New Brunswick, Canada

181
McCutcheon, Prof. F.H.
Animal Biology Department
University of Pennsylvania
Philadelphia
Pennsylvania 19104, U.S.A.

182
*McLachlan, Mr. G.R.
The Museum
28 Bird Street
Port Elizabeth, Republic of South Africa

183
*McNeely, Mr. R.
Bureau of Commercial Fisheries
2725 Montlake Boulevard East
Seattle, Washington 98102, U.S.A.

184
*McRae, Mr. E.D., Jr.
Acting Base Director
Exploratory Fishing Base
State Fish Pier
Gloucester, Massachusetts 01930, U.S.A.

185
Maéda, Dr. H.
Assistant Professor
Laboratory of Fishing Techniques
Department of Fisheries
Shimonoseki University, Japan

186
Magnuson, Dr. J.J.
Chief, Behavior and Physiology Program
Bureau of Commercial Fisheries
Biological Laboratory
P.O. Box 3830
Honolulu, Hawaii 96812, U.S.A.

187
Magnusson, Dr. J.
FAO Marine Fisheries Biologist
c/o UNDP
P.O. Box 1864
Manila
Philippines

188
Maniwa, Dr. Y.
Chief, Underwater Acoustics Section
Fishing Boat Laboratory
Fisheries Agency
Kachidoki 5-5-1
Chuo-ku, Tokyo, Japan

189
*Manteifel, Prof. B.P.
Institute of Morphology of Animals
USSR Academy of Sciences
33 Leninsky Prospect
Moscow, USSR

190
*Marcotte, Mr. A.
Station de Biologie Marine
Grande-Rivière, Quebec, Canada

191
Margetts, Mr. A.R.
Principal Scientific Officer
Ministry of Agriculture, Fisheries and Food
Fisheries Laboratory
Lowestoft, Suffolk, U.K.

192
*Marr, Mr. J.C.
Area Director
Bureau of Commercial Fisheries
P.O. Box 3830
Honolulu, Hawaii 96812, U.S.A.

193
*Mather, Dr. F.J.
Associate Scientist
Woods Hole Oceanographic Institution
Woods Hole, Massachusetts 02543, U.S.A.

194
*Maurin, Mr. C.
Chef de laboratoire
Institut Scientifique et Technique des Pêches Maritimes
6 rue Voltaire
34 Sète, France

195
*Meyer-Waarden, Dr. P.F.
Professor und Direktor
Institute für Küsten-und Binnenfischerei
Bundesforschungsanstalt für Fischerei
2000 Hamburg 50
Palmaille 9
Federal Republic of Germany

196
*Midttun, Mr. L.
Fiskeridirektoratets Havforsknings-
institutt
Nordnesparken 2
Bergen, Norway

197
*Mitsugi, Mr. S.
Tokai Regional Fisheries Research
Laboratory
Chuo-ku
Tokyo, Japan

198
Mitson, Mr. R.B.
Head, Electronics Department
Ministry of Agriculture, Fisheries and
Food
Fisheries Laboratory
Lowestoft, Suffolk, U.K.

199
*Mobray, Mr. W.
Graduate School of Oceanography
University of Rhode Island
Kingston, Rhode Island 02881, U.S.A.

200
Mohr, Dr. H.F.
Institut für Fangtechnik
2 Hamburg 50
Palmaille 9
Federal Republic of Germany

201
*Monterosso, Prof. B.
Instituto di Zoologia
Universita di Catania
Via Androne 25
Catania, Sicily, Italy

202
Morita, Prof. T.
Faculty of Fisheries
Kagoshima University
470 Shimoarata-cho
Kagoshima City, Japan

203
Morović, Dr. D.
Institut za Oceanografiju i Ribarstvo
Split, Yugoslavia

204
*Moulton, Prof. J.M.
Department of Biology
Bowdoin College
Brunswick, Maine 04011, U.S.A.

205
Muntz, Mr. W.R.A.
Laboratory of Experimental Psychology
University of Sussex, Brighton, U.K.

206
Muzinić, Dr. R.
Chief, Pelagic Fishes Group
Institut za Oceanografiju i Ribarstvo
Split, Yugoslavia

207
*Nair, Dr. G.K.
Office of the Fisheries Development
Officer
Andaman and Nicobar Islands (India)
Port Blair, India

208
Nakamura, Mr. E.L.
Fishery Biologist (Research)
Bureau of Commercial Fisheries
P.O. Box 3830
Honolulu, Hawaii 96822, U.S.A.

209
*Nakamura, Mr. H.
North Pacific Fisheries Research Unit
Faculty of Fisheries
Hokkaido University
253 Minato-cho
Hakodate, Hokkaido, Japan

210
Nedelec, Mr. C.
Chef de Laboratoire
Institut Scientifique et Technique des
Pêches Maritimes
150 quai Gambetta
Boulogne-sur-Mer 62, France

211
*Nikonorov, Dr. I.V.
The Ministry of Fisheries
Deputy Chief, Scientifi and Designing
Department
12 Kozdestvensky Boulevard
Moscow, USSR

212
*Nishiyama, Mr. S.
North Pacific Fisheries Research Unit
Faculty of Fisheries
Hokkaido University
253 Minato-cho
Hakodate, Hokkaido, Japan

213
Nomura, Dr. M.
Chief, Fishing Gear Section
Tokai Regional Fisheries Research Laboratory
5-Kachidoki
Chuo-ku, Tokyo, Japan

214
*Norris, Mr. K.S.
The Oceanic Institute
Makapuu Point
Waimanalo
Ohau, Hawaii 96795, U.S.A.

215
*Nursall, Prof. J.R.
Department of Zoology
University of Alberta
Edmonton, Alberta, Canada

216
O'Connell, Mr. C.P.
Fishery Biologist (Research)
Bureau of Commercial Fisheries
California Current Resources Laboratory
P.O. Box 271
La Jolla, California 92037, U.S.A.

217
Okonski, Mr. S.
Chief, Fishing Gear and Techniques Section
Sea Fisheries Institute
Alija Zjednoczenia 1
Gdynia, Poland

218
Olsen, Mr. K.
Fiskeridirektoratets Havforskningsinstitutt
Nordnesparken 2
Bergen, Norway

219
*Olsen, Mr. S.
Fiskeridirektoratets Havforskningsinstitutt
Nordnesparken 2
Bergen, Norway

220
Otsu, Mr. T.
Fishery Biologist (Research)
Bureau of Commercial Fisheries
Biological Laboratory
P.O. Box 3830
Honolulu, Hawaii 96812, U.S.A.

221
Ozaki, Prof. H.
Associate Professor
Department of Physiology
Tokyo University of Fisheries
Minato-ku, Tokyo, Japan

222
Paloheimo, Dr. J.E.
Scientist
Fisheries Research Board of Canada
Bedford Institute of Oceanography
Dartmouth, Nova Scotia, Canada

223
*Parker, Mr. J.
Instituto de Fomento Pesquero
Casilla 1287
Santiago, Chile

224
Parrish, Mr. B.B.
Deputy Director
Department of Agriculture and Fisheries for Scotland
Marine Laboratory
P.O. Box No. 101
Victoria Road
Torry, Aberdeen, Scotland, U.K.

225
Pfeiffer, Dr. W.
Zoophysiologisches Institut der Universitat Tübingen
74 Tübingen
Holderlinstr. 12
Federal Republic of Germany

226
*Piccard, Mr. J.
6 Chemin des Sorbiers
Lusanne, Switzerland

227
*Pillai, Dr. V.K.
Central Fisheries Technological Research Institute
Chittoor Road
Ernakulam, India

228
*Poppel, Mr.
Sea Fisheries Institute
Alija Zjednoczenia 1
Gdynia, Poland

229
Pruter, Mr. A.T.
Assistant Base Director
Exploratory Fishing and Gear Research Base
Bureau of Commercial Fisheries
2725 Montlake Boulevard East
Seattle, Washington 98125, U.S.A.

230
Quasim, Dr. S.Z.
Assistant Director
Biological Oceanography Division
National Institute of Oceanography
Karikkamuri Cross Road
Ernakulam-1, Kerala, South India

231
*Quast, Mr. J.
Scripps Institution of Oceanography
Institute of Marine Resources
University of California
La Jolla, California 92038, U.S.A.

232
Quast, Dr. J.C.
Chief, Marine Biological Investigations
Bureau of Commercial Fisheries
Biological Laboratory
P.O. Box 155
Auke Bay, Alaska 99821, U.S.A.

233
*Radakov, Dr. D.V.
Institute of Animal Morphology
Academy of Sciences of the USSR
33 Leninsky Prospect
Moscow 71, USSR

234
Raimbault, Mr. R.
Chef de la Station de Recherches Conchylicoles
Institut Scientifique et Technique des Pêches Maritimes
34 Sète, France

235
Raitt, Mr. D.F.S.
Senior Scientific Officer
Department of Agriculture and Fisheries for Scotland
Marine Laboratory
P.O. Box No. 101
Victoria Road
Torry, Aberdeen, Scotland, U.K.

236
*Rechnitzer, Dr. A.B.
Autonetics
1230 North Miller
P.O. Box X-1
Anaheim, California 92805, U.S.A.

237
Richardson, Mr. I.D.
Research Secretary
White Fish Authority
Lincoln's Inn Chambers
2/3 Cursitor Street
London, E.C.4, U.K.

238
Riffenburgh, Prof. R.H.
Head, Department of Statistics
University of Connecticut
Storrs, Connecticut 06268, U.S.A.

239
Rodman, Mr. D.T.
Research Biologist (Fisheries)
Bureau of Commercial Fisheries
2725 Montlake Boulevard East
Seattle, Washington 98102, U.S.A.

240
*Rollefsen, Dr. G.
Director
Fiskeridirektoratets Havforsknings-institutt
Nordnesparken 2
Bergen, Norway

241
*Ronholt, Mr. L.
Bureau of Commercial Fisheries
Exploratory Fishing and Gear Research Base
P.O. Box 1668
Juneau, Alaska 99801, U.S.A.

242
*Root, Mr. C.G.
Nederlands Instituut voor Onderzoek der Zee
Buitenhaven 27
Den Helder, Netherlands

243
Rothschild, Dr. B.J.
Chief, Tuna Ecology Program
Bureau of Commercial Fisheries
P.O. Box 3830
Honolulu, Hawaii 96812, U.S.A.

244
Rubio, Mr. M.
Director
Laboratorio y Aquarium
Instituto Investigaciones Pesqueras
Blanes, Costa Brava, Spain

245
Saesterdal, Mr. G.
Fishery Officer
Field Projects Coordination Office
Department of Fisheries
FAO, Rome, Italy

246
Saila, Prof. S.E.
Associate Professor of Oceanography
University of Rhode Island
Kingston, Rhode Island 02881, U.S.A.

247
*Sand, Dr. R.F.
Chief, Gear Research and Development Program
Exploratory Fishing and Gear Development Section
Bureau of Commercial Fisheries
Coral Gables, Florida 33101, U.S.A.

248
Sara, Prof. R.
Direttore, Sezione Tecnologica
Centro Sperimentale per l'Industria della Pesca e dei Prodotti del Mare
Via Onorato 4
Palermo, Sicily, Italy

249
Sasaki, Prof. T.
Tokyo University of Fisheries
4-chome, Konan
Minato-ku, Tokyo, Japan

250
*Saunders, Mr. G.W.
Department of Zoology
University of Michigan
Ann Arbor, Michigan 48106, U.S.A.

251
Saunders, Mr. J.W.
Scientist, Anadromous Investigations
Fisheries Research Board of Canada
Atlantic Biological Station
St. Andrews, New Brunswick, Canada

252
Saunders, Mr. R.L.
Physiologist
Fisheries Research Board of Canada
Biological Station
St. Andrews, New Brunswick, Canada

253
*Saville, Mr. A.
Department of Agriculture and Fisheries for Scotland
Marine Laboratory
P.O. Box No. 101
Victoria Road
Torry, Aberdeen, Scotland, U.K.

254
Scarratt, Dr. D.J.
Fisheries Research Board of Canada
Biological Station
St. Andrews, New Brunswick, Canada

255
Schärfe, Dr. J.
Senior Scientist
Bundesforschungsansalt für Fischerei
Institut für Fangtechnik
2 Hamburg 50
Palmaille 9
Federal Republic of Germany

256
Schoumacher, Mr. R.
Biologist III
Route No. 1, Box 125
Point Pleasant
West Virginia 25550, U.S.A.

257
Schroeder, Dr. G.L.
Oceanographer
Room 2-037
Massachusetts Institute of Technology
Cambridge, Massachusetts 02139, U.S.A.

258
Schumann, Dr. G.O.
Bureau of Commercial Fisheries
P.O. Box 271
La Jolla, California 92038, U.S.A.

259
Senta, Dr. T.
Research Biologist
Fisheries Experiment Station of Okayama Prefecture
Kashino
Ushimado, Okayama, Japan

260
Shariff, Mr. A.T.
Deputy Director
Off-Shore Fishing Station
23 Beach Road
Tuticorin-1, India

261
Sharkey, Mr. P.J.
Managing Director
Marine Electrics
Killybegs, Co. Donegal, Ireland

262
*Shaw, Dr. E.
Associate Curator
American Museum of Natural History
Department of Animal Behaviour
Central Park West at 79th Street
New York, New York 10024, U.S.A.

263
*Shearer, Mr. W.M.
Freshwater Fisheries Laboratory
Faskally
Pitlochry, Perthshire, Scotland, U.K.

264
Shiokawa, Dr. T.
Chief, Fishery Resources Section
53 Matsugae-cho
Nagasaki, Japan

265
Shomura, Mr. R.S.
Fishery Biologist
Bureau of Commercial Fisheries
P.O. Box 3830
Honolulu, Hawaii 96812, U.S.A.

266
Simpson, Mr. D.
Research Engineer
North of Scotland Hydro-Electric Board
Research Laboratory
Tummel Crescent
Pitlochry, Perthshire, Scotland, U.K.

267
Smith, Mr. B.R.
Supervisory Fishery Biologist
Fish and Wildlife Service
P.O. Box 758
Marquette, Michigan 49855, U.S.A.

268
Smith, Mr. K.A.
Base Director
Exploratory Fishing and Gear Research Base
Bureau of Commercial Fisheries
State Fish Pier
Gloucester, Massachusetts 01930, U.S.A.

269
Smith, Mr. M.W.
Senior Scientist IV
Fisheries Research Board of Canada
Biological Station
St. Andrews, New Brunswick, Canada

270
Soemarto, Mr. R.
Djalan Tjiniru 1 No. 3
Block Q 3
Kebajoran, Djarkarta, Indonesia

271
*Soerjodinoto, Mr. R.
Head, Sea Fisheries Service
Pos. Penjelidikan Hasil 2 Laut
Djl. Palembang 67
Probolinggo, Indonesia

272
*Soloviev, Dr. V.F.
Department of Earth Sciences
USSR Academy of Sciences
14 Leninsky Prospect
Moscow, USSR

273
*Springer, Mr. V.
Florida State Board of Conservators
Marine Laboratory, Maritime Base
Bayboro Harbor
St. Petersburg, Florida 33733, U.S.A.

274
Stephan, Capt. USN (Ret.), C.R.
Chairman
Department of Ocean Engineering
Florida Atlantic University
Boca Raton, Florida 33432, U.S.A.

275
Steven, Prof. D.M.
Zoology Department
McGill University
Montreal 2, Canada

276
Stott, Mr. B.
Senior Scientific Officer
Salmon and Freshwater Fisheries Laboratory
Ministry of Agriculture, Fisheries and Food
10 Whitehall Place
London, S.W.1, U.K.

277
Strasburg, Dr. D.W.
Special Technical Assistant to Manager of Underwater Technology
Dept. 413, Electric Boat Division
Groton, Connecticut 06340, U.S.A.

278
*Stuart, Mr. T.A.
Department of Agriculture and Fisheries for Scotland
Brown Trout Research Laboratory
Pitlochry, Scotland, U.K.

279
*Sundnes, Dr. G.
Fiskeridirektoratets Havforsknings-institutt
Nordnesparken 2
Bergen, Norway

280
Sutcliffe, Mr. R.
Associate Bibliographer, Biological Abstracts
2100 Arch Street
Philadelphia
Pennsylvania 19103, U.S.A.

281
Swift, Mr. D.R.
Principal Officer, Fish Farming Projects (Field Sites)
White Fish Authority
2/3 Cursitor Street
London, E.C.4, U.K.

282
Szabo, Dr. T.
Maitre de Recherche
Centre National de la Recherche Scientifique
4 av. Gordon Bennett
Paris 16ème, France

283
Szatybelko, Mr. M.
Chief, Laboratory of Netless Fishing Techniques
Sea Fisheries Institute
Alija Zjednoczenia 1
Gdynia, Poland

284
Takata, Mr. M.
Director
Division of Fish and Game
400 South Beretania Street
Honolulu, Hawaii 96813, U.S.A.

285
Takeda, Mr. K.
Technical Expert (Biologist)
Mutsu Bay Agricultural Research Institution
No. 16-5 Uda, Ominato
Mutsu City, Aomori Prefecture, Japan

286
*Tanaka, Mr. W.T.
Bureau of Commercial Fisheries
P.O. Box 3830
Honolulu, Hawaii 96812, U.S.A.

287
Tanoue, Dr. T.
Associate Professor
Faculty of Fisheries
Kagoshima University
Shimoarata-cho 470
Kagoshima City, Japan

288
*Tavolga, Dr. W.
The American Museum of Natural History
Department of Animal Behaviour
Central Park West at 79th Street
New York, New York 10024, U.S.A.

289
Tawakami, Prof. T.
Department of Fisheries
Kyoto University
Maizuru, Kyoto Prefecture, Japan

290
Taylor, Dr. J.H.
Research Psychologist
Visibility Laboratory
Scripps Institution of Oceanography
University of California
San Diego, California 92152, U.S.A.

291
Templeman, Dr. W.
Director
Fisheries Research Board of Canada
Biological Station
Water Street East
St. John's, Newfoundland, Canada

292
Tesch, Dr. F.W.
Biologische Anstalt Helgoland
2 Hamburg 50
Palmaille 9
Federal Republic of Germany

293
Tester, Dr. A.L.
Senior Professor of Zoology
2538 The Mall
University of Hawaii
Honolulu, Hawaii 96822, U.S.A.

294
Tibbo, Mr. S.N.
Program Head, Pelagic Fish Investigations
Fisheries Research Board of Canada
Biological Station
St. Andrews, New Brunswick, Canada

295
*Tiews, Dr. K.
Fundesforschungsanstalt für Fischerei
Institut für Kusten und Binnenfischerei
2 Hamburg 50
Palmaille 9
Federal Republic of Germany

296
*Tinbergen, Prof. N.
Department of Zoology
Animal Behaviour Research Group
Parks Road, Oxford, U.K.

297
*Treschev, Dr. A.I.
VNIRO
17v. Krasnoselskaya
Moscow, USSR

298
Trujillo, Mr. H.P.
Instituto de Fomento Pesquero
Casilla 1287
Santiago, Chile

299
Tyler, Mr. J.E.
Research Physicist
Scripps Institution of Oceanography
University of California
La Jolla, California 92038, U.S.A.

300
Uchida, Mr. R.N.
Fishery Biologist
Bureau of Commerical Fisheries
Biological Laboratory
P.O. Box 3830
Honolulu, Hawaii 96812, U.S.A.

301
Van Haagen, Mr. R.H.
Senior Consultant
Arthur D. Little, Inc.
15/120 Acorn Park
Cambridge, Massachusetts 96812, U.S.A.

302
Van Middelem, Mr. A.J.L.A.
Technical Engineer
Fisheries Research Station
Stadhuis
4e verdieping, Ostend, Belgium

303
Varley, Dr. M.E.
Department of Zoology
Parks Road, Oxford, U.K.

304
Vaujin, Mr. S.
Head, Fishing Gear and Techniques Laboratory
Centro de Investigaciones Pesqueras
Ave. 3a No. 14625
Playa Habana
Baracoa, Habana, Cuba

305
Verjeijen, Dr. F.J.
Laboratorium voor Vergelijkende Fysiologie der Rijksuniversiteit
Jan Van Galenstraat 40
Utrecht, Netherlands

306
*Vestnes, Mr. G.
Fiskeridirektoratets Havforsknings-institutt
Nordnesparken 2
Bergen, Norway

307
Vick, Mr. N.G.
Fishery Biologist
Res. Acting Director
Eastern Gulf Marine Laboratory
P.O. Box 4218
Panama City, Florida 32401, U.S.A.

308
Villegas, Mr. L.
Biologist, Chief Hake Program
Instituto de Fomento Pesquero
Casilla 1287
Santiago, Chile

309
*Vincent, Mr. F.
Laboratoire de Zoologie
Ecole Supérieure des Sciences
(Centre d'Enseignement Supérieur)
B.P. 69
Brazzaville, Republic of Congo

310
*Walters, Dr. V.
Assistant Professor of Zoology
Department of Zoology
University of California at Los Angeles
Los Angeles, California 90024, U.S.A.

311
*Waterman, Prof. T.H.
Department of Biology
Josiah Willard Gibbs Research
Laboratories
Yale University
New Haven, Connecticut 06520, U.S.A.

312
Wathne, Mr. F.
Fishing Technologist
Gear Technology Section
Fishery Resources and Exploitation
Division
FAO, Rome, Italy

313
Whitney, Dr. R.R.
Fishery Biologist (Research)
Tuna Resources Laboratory
Bureau of Commercial Fisheries
P.O. Box 271
La Jolla, California 92037, U.S.A.

314
Wigley, Dr. R.L.
Fishery Research Biologist
Bureau of Commercial Fisheries
Biological Laboratory
Woods Hole, Massachusetts 02543, U.S.A.

315
Wilber, Dr. C.G.
Chairman and Professor
Department of Zoology
Colorado State University
Fort Collins, Colorado 80521, U.S.A.

316
Wilimovsky, Prof. N.J.
Professor of Fisheries
Institute of Fisheries
University of British Columbia
Vancouver B.C., Canada

317
Wilson, Mr. P.C.
Fishery Biologist
Bureau of Commercial Fisheries
State Fish Pier
Gloucester, Massachusetts 01930, U.S.A.

318
Wisby, Dr. W.J.
Director
National Fisheries Centre and Aquarium
Department of the Interior
19th and C Streets, N.W.
Washington D.C. 20240, U.S.A.

319
Wittenberger, Dr. C.G.
Chief of Laboratory of the
Section for Animal Physiology
Biological Research Centre of the
Rumanian Academy
Clinicilor 5-7
Cluj, Rumania

320
Wolken, Prof. J.J.
Professor of Biophysics and Director
Biophysical Research Laboratory
Carnegie Institute of Technology
Pittsburgh, Pennsylvania 15213, U.S.A.

321
Woodhead, Mr. P.M.J.
Scientific Director
Heron Island Research Station
Via Gladstone, Australia

322
Yamamoto, Mr. T.
FAO/TA Fisheries Statistician
FAO Regional Office for Asia and the
Far East
Maliwan Mansion
Phra Atit Road, Bangkok, Thailand

323
*Yasuda, Dr. J.
Naikai Regional Fisheries Research Laboratory
Fisheries Agency
1328 Ujinamachi
Hiroshima, Japan

324
Yoshihara, Prof. T.
Tokyo University of Fisheries
Konan 4-Chome
Minatoku, Tokyo, Japan

325
*Yoshimuta, Mr. C.
Tokai Regional Fisheries Research Laboratory
5-Kachidoki
Chuo-ku, Tokyo, Japan

326
*Young, Mr. P.H.
California Department of Fish and Game
Marine Resources Operations
511 Tuna Street
Terminal Island, California 90731, U.S.A.

327
Yuen, Mr. H.S.H.
Fishery Biologist
Bureau of Commercial Fisheries
P.O. Box 3830
Honolulu, Hawaii 96812, U.S.A.

328
Zavodnik, Dr. D.V.
Research Associate, Acting Director
Institut za Biologiju Mora
Jugoslavenska Akademije Znanosti i Umjetnosti
Rovinj, Yugoslavia

329
Zei, Dr. M.
Project Manager
c/o FAO Regional Office for Africa
P.O. Box 1628
Accra, Ghana

330
*Zijlstra, Mr. J.J.
Rijksinstituut voor Visserijonderzoek
Haringkade 1
IJmuiden, Netherlands

331
*Zissman, Mrs. L.
Sea Fisheries Research Station
P.O. Box 699
Haifa, Israel

332
Zupanović, Dr. S.
Head, Department of Fisheries
Institut za Oceanografiju i Ribarstvo
Split, Yugoslavia

SUBJECT INDEX

1 MAJOR SUBJECTS

1.1. General fishery Biology

002 003 005 012 013 032
033 039 043 044 050 052
056 058 064 065 066 067
071 073 076 078 081 083
085 089 092 096 098 099
101 102 104 111 113 115
116 120 127 128 130 133
139 143 146 148 150 159
160 163 166 172 173 177
179 180 181 185 186 187
191 200 203 208 210 216
220 222 224 229 230 231
234 235 237 238 239 243
246 248 251 254 255 256
261 264 265 267 268 269
270 276 277 280 281 282
287 291 292 293 294 300
303 307 308 313 315 316
317 318 321 324 327 328
329 332

1.2 Animal Physiology

002 003 007 008 013 014
016 027 028 035 043 046
051 071 073 078 081 089
091 092 094 098 101 107
116 117 122 133 136 139
143 144 153 163 170 171
175 177 181 205 208 221
225 230 252 281 282 303
305 315 319 320 321

1.3 Animal Behaviour

002 004 005 007 008 011
013 014 016 021 025 027
028 032 033 035 039 042
043 044 046 047 051 052
053 054 064 066 067 069
071 072 073 076 077 078
081 083 085 086 090 091
092 094 097 099 101 104
107 111 112 113 114 115
116 117 120 122 123 124
125 128 130 133 136 137
138 139 143 144 148 154
157 160 163 165 166 170
172 177 181 185 186 188
191 200 205 206 208 210
216 218 221 224 225 229
230 238 246 248 251 254
255 257 258 259 266 268
270 275 276 281 282 283
285 287 290 291 292 293

1.3 Animal Behaviour (Continued)

294 298 300 301 303 304
305 315 316 318 321 324
327 329 332

1.4 Fishing Gear Technology

021 025 032 033 034 038
044 048 050 060 069 072
074 077 102 109 122 124
125 128 135 138 140 143
146 148 150 151 158 161
162 163 165 166 170 176
177 179 187 191 200 202
210 213 217 218 224 229
237 244 246 248 249 255
256 257 260 261 268 270
283 287 289 290 291 298
301 302 304 305

1.5 Acoustic Technology

025 042 046 047 059 060
065 069 072 076 077 083
087 091 092 097 109 112
113 114 116 120 122 131
143 145 146 157 165 176
178 186 188 198 218 224
244 249 255 261 266 268
283 291 298 301 308 316
318 327

1.6 Instrumentation

025 048 059 060 065 069
072 076 077 087 109 113
114 122 131 135 138 143
144 145 148 150 165 172
176 177 178 191 198 217
249 255 261 266 268 274
283 285 287 301 302 304
316 320 327

1.7 Animal Ecology

003 004 078 101 169 179
206 230 251 259 269 276
285 299 307 317

1.8 Morphology

053

1.9 Toxicology

003 081

2 LOCATION OF WORK

2.1 Marine Waters

003 004 005 007 008 011
013 014 016 021 025 027
028 032 033 034 035 038
039 042 043 044 046 048
050 051 053 054 056 059
060 064 065 067 069 071
073 074 076 077 078 081
083 085 086 087 089 090
091 092 094 096 097 099
102 104 105 107 109 112
113 114 115 116 117 122
123 124 125 127 128 130
131 133 135 136 137 138
139 140 143 145 146 148
150 151 153 157 158 159
160 161 162 163 165 166
169 171 172 175 176 178
180 181 185 186 187 188
191 198 200 203 205 206
208 210 213 216 217 218
220 221 222 224 225 229
230 231 234 235 237 238
239 243 244 246 248 249
251 252 254 255 257 258
259 260 264 265 266 268
269 274 275 277 280 281
282 283 284 285 287 289
290 291 292 293 294 298
300 301 302 303 304 305
307 308 313 314 315 316
317 318 319 320 321 322
324 327 328 329 332

2.2 Polar Seas

038 065 074 076 083 109
114 131 146 148 157 160
169 185 187 188 191 198
210 231 255 291 316 321

2.3 Temperate Seas

003 005 013 016 021 025
027 028 032 033 034 038
039 042 043 046 048 051
053 054 056 059 064 065
067 069 071 073 074 076
077 078 083 089 090 092
097 102 107 109 113 114
115 116 117 122 124 125
127 128 130 131 133 135
137 138 139 140 146 148
150 151 153 158 159 161
163 165 166 169 171 176
178 180 181 185 188 191
198 200 202 203 206 210
213 216 217 218 220 221

2.3 Temperate Seas (Continued)

222 224 229 230 231 234
235 237 238 239 246 248
252 254 255 257 258 259
264 266 268 277 282 283
285 287 291 292 294 298
301 302 304 305 307 308
314 315 316 317 319 320
321 324 328 332

2.4 Tropical and Subtropical Seas

005 014 021 032 034 044
050 053 054 056 064 065
073 074 076 085 086 092
099 104 105 109 122 123
130 136 137 143 165 169
185 186 187 202 208 217
220 230 235 238 243 249
255 258 260 265 274 275
277 280 283 284 285 287
290 293 294 300 304 305
307 313 318 320 321 327
329

2.5 Inland Waters

002 003 012 014 016 021
025 027 034 039 047 052
058 066 069 072 077 081
087 097 098 101 102 111
112 113 120 125 128 133
139 144 150 153 154 157
170 173 177 178 179 188
200 221 230 249 251 252
256 261 266 267 269 270
276 281 282 292 301 303
305 315 319 320

2.6 Shore Laboratory

003 004 007 008 011 013
014 025 028 033 034 035
042 043 044 046 050 064
069 073 077 078 081 086
087 091 092 096 104 105
112 113 114 116 117 122
128 131 133 137 138 140
143 153 162 166 171 175
178 181 188 198 205 208
216 218 221 224 229 237
239 244 246 249 252 259
266 274 275 277 281 282
283 284 285 289 290 291
293 301 303 316 318 319
328

2.7 Outdoor Enclosures

042 046 047 051 064 081
086 092 101 102 104 109

2.7 Outdoor Enclosures (Continued)

112 116 143 166 188 208
237 261 266 277 281 298
301 318

2.8 Theoretical Models

222

3 TYPE OF GEAR OR FISHING METHOD

3.1 Trawl

003 005 013 016 021 025
028 032 033 034 038 042
044 048 050 051 056 060
067 069 071 072 073 076
077 078 083 085 089 097
098 104 109 114 115 116
117 124 125 127 128 133
135 146 148 150 157 158
159 160 161 162 163 165
166 176 180 187 188 191
198 200 203 210 213 216
217 218 224 229 230 231
235 237 238 244 246 248
254 255 260 268 282 283
291 294 298 301 302 304
308 314 315 316 321 332

3.2 Danish seine

025 069 076 077 117 125
127 128 159 185 191 224
231 238 287

3.3 Purse seine and encircling net

005 021 025 027 032 034
038 044 058 069 072 074
076 077 083 085 086 089
096 102 104 105 109 122
128 137 138 143 146 148
150 163 181 187 191 210
213 218 224 231 238 244
248 255 257 268 287 290
294 298 304 305 313 315
317 328 329

3.4 Gillnet and tanglenet

012 028 033 034 039 044
050 056 058 064 067 072
076 085 086 094 096 098
102 109 111 112 117 120
128 133 139 148 150 159
165 166 179 185 188 191
200 210 213 217 220 224
231 238 243 244 256 260
264 270 284 287 291 294
304 316

3.5 Traps and miscellaneous nets

002 005 012 021 033 034
039 043 044 047 050 051
052 056 058 064 067 072
086 090 097 098 101 102
111 112 113 115 128 133
140 144 148 150 151 154
159 179 185 188 191 200
213 224 229 231 238 244
246 248 249 251 254 256
261 267 268 269 270 276
277 284 294 303 304 305
315 316 320 324

3.6 Hooks and lines

005 021 034 039 044 050
053 056 058 064 067 073
076 086 099 104 109 112
116 120 122 127 128 133
140 143 144 148 154 159
161 165 166 177 181 185
186 187 188 191 202 208
217 220 224 229 231 243
244 248 252 265 268 269
270 277 284 287 291 293
294 298 300 304 307 308
313 317 321 324 327

3.7 Electro fishing

002 012 027 044 058 113
154 170 251 252 261 266
269 276 301 303

3.8 Fish pumps

044 162 283

3.9 Harpoons, Spears, etc

005 099 284

4 TECHNIQUES FOR STUDYING FISH BEHAVIOUR

4.1 Direct Underwater observations

002 005 013 014 016 021
027 032 034 038 044 046
051 052 053 064 072 081
086 089 090 092 101 102
104 105 111 113 117 120
122 123 124 127 128 130
137 140 143 154 157 159
160 161 162 163 169 176
186 191 202 208 213 224
225 231 237 249 252 254
255 259 266 274 276 277
280 284 287 290 293 294
304 307 315 316 318 321
327

4.2 Indirect Underwater observations

014 016 021 025 028 034
038 042 044 050 051 053
054 059 064 069 071 072
077 083 092 097 104 105
111 112 116 124 128 131
136 137 143 148 154 157
159 162 165 178 188 191
198 200 208 224 237 248
249 252 255 258 261 266
268 274 275 277 283 287
290 294 314 315 318 320
327

4.3 Sonic Devices

005 016 021 025 027 032
034 038 039 046 050 051
053 054 059 064 065 067
069 071 072 074 076 077
078 083 085 086 087 090
092 097 102 104 105 107
109 111 112 113 114 115
120 122 124 128 131 133
135 138 140 143 144 146
148 150 157 159 161 163
165 166 176 178 180 186
187 188 191 198 200 210
216 217 218 222 224 229
230 235 237 248 249 251
255 257 261 264 266 268
277 283 285 287 292 294
298 301 302 304 305 308
316 318 321 327 328 329
332

4.4 Comparative and experimental fishing

002 005 012 021 025 027
033 034 038 044 050 056
058 069 071 072 076 077
078 085 086 098 101 102
104 105 109 111 115 124
125 128 135 140 143 148
150 151 158 159 162 163
165 166 176 179 180 185
187 191 198 202 208 210
213 217 220 222 224 229
235 238 244 248 249 254
255 256 259 260 264 265
267 268 269 270 274 276
277 280 282 283 284 287
291 298 300 301 302 304
305 307 308 314 315 317
318 324 327 332

4.5 Laboratory, Aquarium Investigations

004 007 008 011 013 028
033 042 043 047 053 067
081 090 091 094 128 133
136 153 154 172 175 181
186 191 205 225 258 266
275 281 284 303 305 315
319

4.6 Direct Surface and Aerial Observations

021 085 257

4.7 Marking Fish

039 144 292

4.8 Theoretical Models

243 246

5 EXPERIMENTAL STUDIES ON REACTIONS TO SINGLE NON-BIOLOGICAL ENVIRONMENTAL STIMULI

5.1 Temperature

002 003 004 014 016 021
025 032 033 043 044 050
052 053 056 067 069 072
076 077 081 083 085 089
092 096 098 101 104 105
107 109 111 116 133 137
154 159 160 163 165 166
169 172 179 202 220 230
237 238 248 252 254 260
261 268 269 277 282 285
287 294 300 303 307 314
315 316 317 321 324 327
332

5.2 Light

004 007 021 025 027 028
032 033 039 043 044 050
053 054 067 069 072 073
076 077 083 085 089 090
092 096 098 101 102 104
107 109 116 117 120 122
124 128 133 136 137 138
140 144 148 153 154 157
159 160 163 165 166 172
176 185 191 200 205 206
208 213 217 221 230 235
237 238 248 249 252 254
259 260 261 266 268 269
274 275 282 283 284 287
290 293 294 303 304 305
307 316 318 319 320 321
327 328

5.3 Sound

016 025 027 032 034 039
042 043 044 046 051 053
064 069 077 086 090 091
092 096 097 109 112 113
116 128 143 157 165 166
175 188 191 200 218 238
248 249 261 266 270 277
285 293 294 301 305 307
316 318

5.4 Chemical

003 004 014 016 032 034
043 050 072 081 089 094
096 101 104 107 113 116
117 128 133 153 169 172
181 200 225 237 238 248
251 252 261 275 277 284
285 292 293 315 316 318
327

5.5 Electrical

025 027 034 043 044 069
072 074 077 078 083 090
092 096 102 105 116 125
128 144 148 161 162 163
165 166 170 238 257 261
266 267 268 282 283 284
293 301 303 304 305 318
319

6 EXPERIMENTAL STUDIES ON REACTIONS TO COMPLEX AND BIOLOGICAL STIMULI

6.1 Reactions to multiple non-biological stimuli

002 003 004 008 011 014
016 021 025 028 033 034
035 039 043 044 050 054
064 067 069 071 072 076
077 083 086 089 090 092
096 098 101 102 107 111
113 116 117 120 124 127
128 130 133 137 138 140
144 146 148 150 153 154
157 159 160 163 165 166
170 172 181 186 210 213
224 229 230 235 237 238
246 248 249 251 252 254
255 257 258 259 260 261
266 268 269 274 276 277
282 285 287 289 290 292
293 294 300 301 303 305
307 314 315 316 317 320
321 324 327 328 329 332

6.2 Behaviour Patterns arising from Biological and Complex stimuli

002 004 007 011 014 016
021 028 032 034 035 039
043 044 046 050 053 064
067 071 072 076 081 085
090 092 094 096 097 099
101 102 104 111 115 116
117 120 123 128 130 133
137 139 140 143 144 146
154 157 159 160 166 171
175 185 186 200 210 216
224 225 229 230 238 248
251 255 258 259 268 275
276 277 280 282 284 291
294 298 300 303 305 307
308 316 318 321 324 327

6.3 Conditioning and learning

011 013 014 016 034 035
039 042 043 046 051 053
064 067 071 072 076 090
091 096 101 104 113 116
122 128 133 140 143 144
200 205 208 218 225 266
275 276 282 290 293 301
305 316 318

6.4 Measurement of Swimming Speed

002 003 004 008 013 016
025 028 033 035 039 043
044 054 069 072 077 081
090 098 101 104 113 120
124 137 143 165 166 176
186 221 249 252 277 287
292 294 301 316 327

6.5 Reaction to parts of fishing gear

016 021 025 028 028 033
034 038 042 043 044 050
051 069 071 072 077 104
105 114 117 122 124 125
128 135 137 148 157 161
165 166 176 179 185 191
202 210 213 224 229 237
246 249 255 257 260 261
268 274 277 283 284 287
289 290 300 301 302 304
305 318 332

6.6 Fish behaviour during fishing operations

005 016 021 025 027 028
032 033 034 038 042 044
050 069 071 072 076 077
085 097 102 104 105 109
114 116 117 122 124 128
135 138 143 146 148 150
151 157 159 161 162 163

6.6 Fish behaviour during fishing operations (Continued)

165	166	170	176	185	191
200	208	210	213	217	218
224	229	235	237	248	249
251	255	256	257	260	261
264	268	270	274	277	283
284	287	289	290	291	300
301	302	304	305	307	308
313	317	318	321	324	327

TAXONOMIC INDEX

1.00 FISHES

1.02 Petromyzontidae

Lampetra fluviatilis

175

1.03 Myxinidae

Myxine glutinosa

175

1.07 Isuridae

Isurus oxyrinchus

294

Lamna nasus

294

1.08 Scyliorhinidae

Scyliorhinus canicula

175

1.08 Carcharhinidae

Carcharhinus falciformis

294

Carcharhinus longimanus

294

Carcharhinus milberti

294

Carcharhinus obscurus

294

Carcharhinus sp

293

1.08 Carcharhinidae (Continued)

Galeocerdo cuvieri

293

Prionace glauca

294

1.08 Sphyrnidae

Sphyrna lewini

293 294

Sphyrna zygaena

294

1.09 Squalidae

073

Sharks (unspecified)

053 153 290 318

1.10 Rajidae (unspecified)

005 053 282

Raja clavata

175 332

1.11 Skates (unspecified)

282

1.11 Torpedinidae

282

Subclass Bradyodonti

1.12 Chimaeridae

Hydrolagus

073

Clupeoidei (unspecified)

034 044 050 069
074 077 086 091
109 112 114 128
135 140 146 151
158 162 165 166
178 185 191 208
213 237 238 255
268 275 283 289
302

1.21 Dussumieriidae

Etrumeus micropus

249 287

1.21 Clupeidae

Alosa fallax nilotica

248

Clupea harengus

028 033 035 038
051 065 071 073
076 083 102 133
139 148 172 198
200 210 217 218
224 257 261 294
305

Clupea harengus pallasi

085 124 150 229
231 316 321

Clupea sprattus

067 073 163 198
217 248 328

Euplatigaster indica

085

Harengula thrissina

130

Hilsa ilisha

085

Hilsa toli

085

Ilisha elongata

085

Sardina pilchardus

005 027 028 032
038 073 083 163
206 248 305 328
332

Sardinella

076

Sardinella anchovia

217 304

Sardinella aurita

085 248 329

Sardinella fimbriata

085

Sardinops caerulea

171 216

Sardinops melanosticta

138

1.21 Dorosomatidae

Anadontostoma chacunda

085

1.21 Engraulidae

Engraulis encrasicolus

005 027 032 083
163 248 284 305
328

Engraulis japonicus

085 138 140 287

Engraulis mordax

124 137 150 171
216 229

1.21 Engraulidae (continued)

Engraulis ringens

298

Stolephorus purpureus

123 143

1.22 Chanidae

Chanos chanos

270

1.23 Salmonidae

151 185 221 261

Coregonus albula

072

Salmo clarki

039 081 144

Salmo gairdneri

027 052 081 111
153 154 177 252
269 318

Salmo irideus

013 285

Salmo salar

013 016

Salmo trutta

016 043 058 098
111 133 177 252
303 318 319

Salvelinus

098

Salvelinus fontinalis

016 154 177 252
269 318

Plecoglossus altivelis

140 259 287

1.23 Osmeridae

Osmerus eperlanus

072

Hypomesus pretiosus

124

1.23 Haplochitonidae

Lovettia sealii

177

1.23 Argentinidae

Argentina silus

187

1.24 Esocidae

Esox lucius

058 315

1.31 Galaxiidae

Galaxias attenuatus

177

Galaxias truttaceus

177

Galaxias weedoni

177

Prototroctes maraena

177

1.32 Myctophidae

178

1.36 Gymnarchidae

282

1.36 Mormyridae

282

1.39 Gymnotidae

282

1.40 Catastomidae

098

Catastomus catastomus

111

Catastomus commersonii

016 111

1.40 Cyprinidae

Gobio gobio

276

Cyprinus carpio

016 058 153 221 270 318 319

Cyprinidae (unspecified)

014 098 303

Ctenopharyngodon idellus

276

Barbus stigma

230

Abramis brama

058

Alburnus alburnus

058 073

Blicca bjorkna

058

Carassius auratus

013 016 125 181 205 221

Leuciscus alburnus

072

Leuciscus leuciscus

013 058 073

1.40 Cyprinidae (continued)

Leuciscus rutilus

200

Notropis cornutus

016

Osteochilus hasselti

270

Pimephales notatus

318

Puntius javanicus

270

Puntius orphoides

270

Rutilus rutilus

058 117 276

Scardinius erythrophthalmus

205

Squalius cephalus

058

1.41 Siluridae

Callichrous bimaculatus

230

Clarias batrachis

270

1.41 Ictaluridae

Ictalurus nebulosus

007 016

Ictaluridae (unspecified)

014

1.43 Anguillidae

Anguilla anguilla

027 072 172 203

Anguilla australis

177

Anguilla mauritiana

270

1.43 Muraenidae

280

1.47 Scomberosocidae

Cololabis saira

140

1.47 Hemirhamphidae

Hemiramphus sajori

259

1.47 Exocoetidae

Cypselurus heterurus

264

Cypselurus opisthopus

264

Cypselurus starksi

264

1.48 Gadidae

Boreogadus saida

316

Gadus callarias

035 073 133

Gadus esmarkii

187

1.48 Gadidae (continued)

Gadus macrocephalus

003 125 229 231

Gadus merlangus

043 127 210

Gadus morhua

016 038 042 043 051
065 067 157 180 198
200 210 217 218 224
235 252 291 305 321

Gadus pollachius

051 067 125

Gadus virens

043 067 133 210

Melanogrammus aeglefinus

016 038 051 078 116
127 180 198 224 291

Micromesistius poutassou

187 235

Molva

248

Onos mustelus

073

Phycis

248

Theragra chalcogrammus

229 231

1.48 Merluccidae

Macruronus magellanicus

298 308

Merluccius capensis

065

1.48 Merluccidae (continued)

Merluccius gayi

298 308

Merluccius merluccius

248 332

Merluccius polylepsis

298 308

Merluccius productus

124 150 229

Urophycis chuss

014

Merluccidae (unspecified)

148

1.50 Gasterosteidae

Gasterosteus aculeatus

072

1.57 Cyprinodontidae

Gambusia sp

143

Lebistes reticulatus

081

Oryzias latipes

186

1.62 Zeidae

Zeus faber

116

1.64 Sphyraenidae

Sphyraena barracuda

249 307 318

1.65 Atherinidae

Hepsetia

275

1.65 Mugilidae

Mugil cephalus

304

1.70 Serranidae

Mycteroperca rosacea

130

Sea bass

315

Roccus chrysops

113 318

1.70 Lutjanidae

Lutjanus synagris

304

Lutjanidae (unspecified)

044

1.70 Plectorhynchidae

Plectorhynchus

153

1.70 Centrarchidae

Lepomis cyanellus

318

Lepomis macrochinis

081

Lepomis

154

Micropterus Dotomiev

052

Micropterus salmoides

081 318

Centrarchidae (unspecified)

098

1.70 Percidae

Perca flavescens

113 120 318

Perca fluviatilis

058 200

Stizostedion

090

1.70 Sciaenidae

044

1.70 Carangidae

Chorinemus

153

Decapterus muroadsi

140

Seriola quinqueradiata

115 151

Trachurus mediterraneus ponticus

319

Trachurus japonicus

138 140 249

Trachurus symmetricus

137

Trachurus trachurus

073

1.70 Mullidae

Mullus barbatus

332

1.70 Sparidae

Pagellus erythrinus

332

1.70 Sparidae (unspecified)

005

1.70 Cichlidae

Tilapia macrocephala

143

Tilapia mossambica

016 143 270 300

Tilapia zillii

303

Cichlidae (unspecified)

081 139 318

1.70 Pomadasyidae

Parapristipoma trilineatum

140

1.70 Labridae

Tautog

315

1.70 Percopsidae

Percopsis omiscomayous

186

1.70 Gadopsidae

Gadopsis taomanicus

177

1.70 Girellidae

Girella nigricans

081

1.70 Oplegnathidae

Oplegnathus

153

1.71 Bleniidae

Blennius photis

230

Centronotus gunnellus

230

Entomacrodus marmoratus

277

Istiblennius zebra

277

Stichaeidae

316

1.75 Scombridae

Acanthocybium solandri

318

Scomber japonicus

021 137 140 248 287

Scomber tapeinocephalus

287

Rastrelliger kanagurta

085

Rastrelliger neglectus

085

Sarda chiliensis

186

Sarda sarda

248

Scomber scombrus

073 102 210 248 294

Scomberomorus cavalla

304 318

Scomberomorus commerson

085

Scomberomorus guttatus

085

Scomberomorus

153

1.80 Auxis rochei

021 208

Auxis thazard

021 085 208 248

Euthynnus affinis

021 085 143 186 208

Euthynnus alleteratus

021 248 317 318

Euthynnus lineatus

137

Euthynnus yaito

136

Euthynnus pelamis

014 085 099 123 137
143 186 200 208 265
277 300 318 327

Thunnus alalunga

099 229 248 265 294
300 317

Thunnus albacares

099 136 137 143 186
208 265 287 294 317
327

1.80 Thunnus atlanticus

318

Thunnus obesus

099 186 208 265 294 317 327

Thunnus thynnus

005 032 203 248 294 317

Thunnus tonggol

085

Scombrids (unspecified)

Clubmackerel

249

Mackerel

032 217 257

1.75 Istiophoridae

Istiophorus americanus

307

Istiophorus allisoni

307

Istiophorus atlanticus

307

Istiophorus belore

307

Makaira nigricans

265 307 317

Tetrapturus albinus

317

Tetrapturus audax

265

Tetrapturus pfluegeri

317

Marlins

307

Sailfish

307

1.75 Xiphiidae

Xiphias gladius

265 294 317

1.76 Anabantidae

Helostoma temmincki

270

Trichogaster pectoralis

170

Osphronemus goramy

270

1.78 Scorpaenidae

Sebastes inermis

115

Sebastes marinus

016 187

Sebastes mentella

291

Sebastes

153 259

Sebastodes alutus

231

Sebastodes

231

Scorpaenidae (unspecified)

148 229

1.78 Hexagrammidae

231

1.78 Triglidae

Trigla

116

1.78 Cottidae

Cottus perplexus

081

Myoxocephalus octodecemspirosus

016

Cottidae (unspecified)

231 316

1.83 Pleuronectidae

Eopsetta jordani

003

Limanda Yokohamae

115

Platichthys flesus

058 133

Pleuronectes platessa

008 028 071 076 133 321

Pseudopleuronectes americanus

016 089 252

Achirus fasciatus

315

Lareius bicoloratus

115

Halibut

076 180

Flounder

124

Pleuronectides (unspecified)

008 038 148 229 231 246 305

1.83 Soleidae

Parophrys vetulus

003

Solea solea

028 071 210 321

Soleidae (unspecified)

305

Heterosomata (unspecified)

European flatfish

191

1.87 Echeneidae

Remora remora

277

1.89 Monacanthidae

Monacanthus

153

1.90 Tetraodontidae

Tetraodon

315

1.90 Lagocephalidae

Sphaeroides maculatus

089

1.93 Batrachoididae

Opsanus

007 315

1.95 Lophiidae

Lophius piscatorius

007

4.22 Coryphaenidae

Coryphaena hippurus

208 265 318

Fish (unspecified): Freshwater

002 011 012 034 066
097 101 128 165 166
170 179 188 225 256
266 269 270 281 284
289 301 305 320

Fish (unspecified): Marine

014 016 025 034 044
048 050 053 056 064
069 074 077 081 086
090 091 101 104 105
107 109 112 114 117
122 128 135 153 157
159 161 162 165 166
169 176 178 185 187
188 191 202 217 220
221 225 237 238 239
243 255 258 268 275
283 284 289 290 302
304 313 320 321 324

2.00 CRUSTACEA

2.10 Copepoda

Calanus

013

Copepoda (unspecified)

013

2.20 Mysidacea

Mysids (unspecified)

013

2.25 Hoplocarida

Squilla oratoria

259

2.26 Euphausiacea

Euphausia pacifica

171

Euphausids (unspecified)

013

Meganyctiphanes

013

2.28 Decapoda: Macrura

Aristeus

248

Crangon vulgaris

071

Palaemonetes vulgaris

089

Pandalids

148 229 304

Pandalus borealis

314

Penaeids

044

Penaeus Aztecus

004

Parapaeneus

248

Plesionika

248

Astacopsis gouldi

177

Homarus americanus

246 251 252 254

Homarus vulgaris

043 064 067

Panulirus argus

304

2.29 Decapoda: Brachyura

Cancer

148 254

Cancer borealis

314

Cancer pagurus

043

Lithodes

148

Pachygrapsus crassipes

123

Paralithodes

148

Crustacea (unspecified)

064 163 230

3.00 MOLLUSCA

3.10 Heteropoda

073

3.11 Pteropoda

073

Scapharca broughtoni

264 285

3.16 Lamellibranchiata

Crassostrea

234

Crassostrea virginia

004

Mercenaria mercenaria

089

Mytilus edulis

067 285

Mytilus galloproticialis

234

Ostrea edulus

056 234 285

Patinopecten

148 285

Pecten gibbus

044

Pinotata mortensii

153

Meretrix meretrix

153

3.20 Cephalopoda

Nautilus

073

Octopus dafleini

124

Sepia officinalis

073

Spirula

073

Squids

073 249

Invertebrates (unspecified)

054 090 208 280 324

GEOGRAPHIC INDEX

100 AFRICA

113 Morocco

005 056

133 Tansania

018

141 Dahomey

055

144 Ghana

329

146 Republic of Congo

309

154 Republic of South Africa

068

200 NORTH AMERICA

210 Canada

003 016 023 024 035 037
042 048 078 082 090 098
102 111 129 154 159 179
180 190 215 222 251 252
254 269 275 291 294 316

230 United States

001 004 006 007 009 010
014 026 033 036 039 040
044 047 052 053 054 064
080 081 082 086 087 089
092 093 096 099 100 101
104 105 113 119 120 121
122 123 124 130 134 136
137 141 143 144 147 148
150 162 169 171 174 176
181 183 184 186 192 193
199 204 208 214 216 220
229 231 232 236 239 241
243 246 247 250 256 257
258 262 265 267 268 273
274 277 280 284 286 288
290 293 299 300 301 307
310 311 313 314 315 317
318 320 326 327

300 LATIN AMERICA

322 Cuba

304

332 Venezuela

106

343 Chile

223 298 308

400 ASIA

413 Israel

021 331

423 India

050 164 167 207 227 230
260

431 Burma

085

432 Thailand

173 322

437 Philippines

187

434 Indonesia

270 271

444 Korea

155

451 Japan

088 112 115 125 126 128
138 140 142 151 152 153
158 161 165 166 185 188
197 202 209 212 213 221
249 259 264 285 287 289
323 324 325

500 EUROPE

511 Denmark

030 108

513 Iceland

146

514 Norway

067 076 083 091 103 109
131 145 196 218 219 240
279 306

521 Netherlands

011 025 069 070 071 075
077 084 107 242 305 330

522 Belgium

135 302

524 France

027 032 046 066 094 163
170 194 210 234 282

531 Ireland

261

533 England, Scotland and Wales

002 008 012 013 015 017
019 028 031 038 041 043
045 049 051 057 059 060
061 062 063 065 073 095
110 114 116 117 127 133
139 149 168 175 178 191
198 205 224 235 237 253
263 266 278 278 281 296
303

542 Spain

244

543 Italy

020 029 079 201 245 248
312

551 Yugoslavia

203 206 328 332

555 Roumanian People's Republic

319

561 German Federal Republic

034 074 097 118 132 156
172 195 200 225 255 292
295

562 Switzerland

226

572 Poland

072 217 228 283

600 OCEANIA

610 Australia

177 321

700 UNION OF SOVIET SOCIALIST REPUBLICS

157 160 189 211 233 272
297